	Application No.	Applicant(s)
Notice of Allowability	09/811,011	WARRIER ET AL.
	Examiner	Art Unit	
	J. Bret Dennison	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *3/13/2007*.

2. ☒ The allowed claim(s) is/are *1,2,4,6-24,28-31 and 33-35*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None   of the:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application

6. ☒ Interview Summary (PTO-413), Paper No./Mail Date *attached* .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____.

DAVID WILEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

EXAMINER'S AMENDMENT

An Examiner's amendment to the record appears below. Should the changes and/or

additions be unacceptable to applicant, and amendment may be filed as provided by 37

CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no

later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview

with Dermot Miller on 5/21/2007.

IN THE CLAIMS

1. (Currently Amended) A method for a first machine having a private network
address on a private network to communicate with a second machine external to the
private network via a network address translation (NAT) access point at the first
machine, the method comprising:

receiving at the first machine network configuration data from a network
configuration server external to the private network;

embedding the received network configuration data and a destination address
associated with the second machine in a data portion of a packet, the embedded
configuration data implementing in part the network configuration server as a proxy
server for the first machine;

sending the packet from the first machine to the second machine via the network
configuration server based at least in part on the network configuration data and the
destination address, the sending without subjecting the embedded configuration data to
NAT by the NAT access point at the first machine; and

receiving proxy server services from the network configuration server based on

the embedded network configuration data.

2.   (Currently Amended)   The method of claim 1, wherein the network

configuration data comprises a network address, ~~the method further comprising:~~ and

wherein receiving proxy server services from the network configuration server

comprises establishing a tunnel between the first machine and the network

configuration server for relaying to the first machine network traffic sent to the network

address.

3.   (Canceled).

4.   (Currently Amended)   The method of claim 1, wherein ~~the protocol is a~~

~~selected~~ first machine and the second machine communicate via one of an audio

protocol, a visual protocol, and audiovisual protocol, and a telecommunication protocol.

5.   (Canceled).

6.   (Currently Amended) A method for communicating through an access point

coupling plural machines on a first network to a second machine on a second network

by performing network address translation (NAT) on first network traffic, the method

comprising:

receiving at a server on the second network a request for an address from a first machine on the first network;

~~transmitting from the first network a second request for a second address on the second network, the second request in response to a first request for a first address of a first machine on the first network;~~

in response to the ~~second~~ request for an address, sending to the first ~~network the second address from a server on the second network~~ machine a network address from the server on the second network;

transmitting ~~through~~ from the first machine to the access point ~~at least one~~ a network packet having a header comprising a packet origin, and a data payload comprising the ~~second~~ network address;

~~translating at the server~~ performing at the access point a network address translation of the header of the packet ~~by the access point of the packet origin~~ without changing the allocated network address of the data payload; [[and]]

~~using the second network address in the payload of the packet at the server as a network configuration for a communications exchange~~

sending the data packet from the access point to the server; and

providing at the server a proxy server service in support of the first machine communicating with the second machine, the providing based at least in part on the network address in the payload of the packet.

7.   (Currently Amended)   The method of claim 6, ~~further comprising~~ wherein providing a proxy server service at the server comprises:

     establishing a tunnel between the first machine and the server; and

the first machine receiving, through the tunnel, network traffic sent to the ~~second~~
network address.

8.   (Original)   The method of claim 7, wherein the access point performs selected
ones of: network address translation, and port translation on the at least one network
packet.

9.   (Previously Presented)   The method of claim 6, further comprising:

providing a network address translation (NAT) based router between the first
machine and the second machine to perform NAT translation on communication
between said first and second machines.

10.   (Original)   The method of claim 9, wherein the NAT based router is the access
point.

11.   (Currently Amended)   The method of claim 6, further comprising:

communicatively coupling the server to the second network such that network
traffic from the server reaches the second ~~network~~ machine without translation.

12.   (Original)   The method of claim 11, wherein the second network is the
Internet.

13.   (Original)   The method of claim 6, wherein the packet origin address is the first network address.

14.   (Currently Amended)   The method of claim 6, further comprising:

executing a networking application program, said program issuing the request for the ~~first~~ address of the first machine, and storing said ~~provided second~~ network address as the data payload;

wherein the networking application program is unaware of said translating.

15.   (Currently Amended)   The method of claim 6, wherein the first machine comprises:

a network interface communicatively coupled to the first network;

a first memory for storing an operating system providing network services; and

a second memory for storing a network driver communicatively coupling the network interface to said network services~~, said network driver performing said allocating the second address, and providing the second address responsive to the request for the first address~~.

16.   (Currently Amended)   The method of claim 15, further comprising:

executing a networking application program which issues the request for the first address; and

the network driver providing the ~~second~~ network address responsive to said networking application program request.

17.   (Previously Presented) A method for a machine on an internal network to utilize a protocol embedding a machine network address within network traffic data when such traffic routes through an access point that performs network address translation on the machine network address, the method comprising:

receiving at an external server first network traffic from a network driver executing on the machine of the internal network;

allocating at the external server an external address on an external network;

sending the external address from the external server to the network driver of the first machine using a payload portion of a data packet; and

establishing a tunnel from the external server through the access point to the network driver to allow network traffic sent to the external address to be received by the network driver.

18.   (Previously Presented)   The method of claim 17, further comprising:

receiving second network traffic from an application program executing on the first machine, the second traffic including a data packet payload encoding an identified address determined by the application program for the first machine.

19.   (Previously Presented)   The method of claim 18, wherein the application program is a telecommunication program, the method further comprising:

contacting the external server on the external network, the contacting by the network driver;

initiating a call by said program to an endpoint;

notifying said server of said initiating;

establishing said call to the endpoint by said server;

notifying the network driver of success/failure of said establishing; and

notifying said program of said success/failure.

20.   (Original)   The method of claim 19, wherein:

the application program telecommunicates with the network driver; and

the endpoint telecommunicates with the server.

21.   (Currently Amended)   A method for a first machine on an local area network (LAN) to communicate with a wide area network (WAN) through an access point configured to perform network address translation (NAT) on LAN network traffic, the method comprising:

providing at the first machine layer-based network services including an application layer, a network driver layer, and a session layer, wherein a network driver of said network driver layer is called before said session layer;

executing at the first machine an application program configured to identify a first address of the first machine, embed said identified first address within network traffic data, and send said network traffic data to a communication endpoint on the WAN;

providing a WAN address to said application program to allow said application program to embed the WAN address within the network traffic data, the providing by the layer-based network services of the first machine; and

establishing a first communication session between said application program and said network driver, a second communication session between said network driver and [[the]] a server, and a third communication session between the server and the said communication endpoint.

22.   (Previously Presented)   The method of claim 21, further comprising:

contacting a server on the WAN to obtain the WAN address;

receiving a call setup from said application program for the endpoint;

establishing a call from the server to the communication endpoint;

connecting said call to said driver; and

transparently forwarding said call by said driver to the server.

23.   (Original)   The method of claim 21, wherein the session layer comprises the Microsoft Winsock Application Programming Interface.

24.   (Original)   The method of claim 21, wherein said network services are arranged according to the ISO/OSI model.

25-27. (Canceled).

28.   (Currently Amended) An apparatus for communicating through an access point coupling plural machines on a first network to a second machine on a second network by performing network address translation (NAT) on first network traffic, comprising a readable medium having instructions encoded thereon for execution by a processor, said instructions capable of directing the processor to perform:

receiving a request for an ~~first~~ address [[of]] from a first machine on the first network;

~~allocating a second network address from a server on the second network;~~

providing ~~the second~~ a network address to the first machine in response to the request;

~~transmitting through~~ receiving from the first machine via the access point ~~at least one~~ a network packet having ~~a header comprising a packet origin, and~~ a data payload comprising the ~~second~~ network address~~; performing,~~ the access point having performed a network address translation (NAT) [[on]] of the packet ~~by the access point of the packet origin~~ without changing the allocated network address of the data payload; and

~~using the second network address in the payload of the packet to provide a network configuration for a communications exchange~~

providing a proxy server service in support of the first machine communicating with the second machine, the providing based at least in part on the network address in the payload of the packet.

29.   (Currently Amended)   The apparatus of claim 28, ~~said instructions~~ ~~comprising further instructions capable of directing the processor to perform:~~ wherein providing a proxy server service in support of the first machine communicating with the second machine comprises establishing a tunnel between the first machine and the server; ~~and the first machine receiving, through the tunnel, network traffic sent to the second address~~ to transmit network traffic sent to the network address.

30.   (Original)   The apparatus of claim 28, wherein a network address translation (NAT) based router between the first machine and the second machine translates communication between said first and second machines.

31.   (Original)   The apparatus of claim 30, wherein the NAT based router is the access point.

32.   (Canceled).

33.   (Previously Presented) A system for machines on an internal network to utilize protocols embedding machine network addresses within network traffic data when routing the network traffic through an access point that translates internal network addresses into a single address on an external network, the system comprising:

    receiving means for receiving first network traffic from a network driver executing on a first machine of the internal network;

    allocating means for allocating an external address on ~~the second~~ an external network;

providing means for providing the external address to the network driver of the first machine using a payload portion of a data packet; and

establishing means for establishing a tunnel through the access point to the network driver so that network traffic for the external address is received by the network driver.

34.   (Previously Presented)   The system of claim 33, further comprising:

receiving means for receiving second network traffic from an application program executing on the first machine and a data payload encoding an identified address determined by the application program for the first machine.

35.   (Previously Presented)   The system of claim 34, wherein the application program is a telecommunication program, the system further comprising:

means for contacting by the network driver of a call handling server on the external network, said call handling server performing said allocating the external address and establishing the tunnel;

initiating means for initiating a call by said application program to an endpoint;

notifying means for notifying said call handling server of said initiating;

establishing means for establishing said call to the endpoint by said server;

notifying means for notifying the network driver of success/failure of said establishing; and

notifying means for notifying said application program of said success/failure.

36-37. (Canceled).

Allowable Subject Matter

Claims 1, 2, 4, 6-24, 28-31, and 33-35 are allowed in view of the Applicant's

arguments (see Applicant's Response, filed 3/13/2007) and the cited prior art of record.

The independent claims recite a first machine having a private network address on a

private network to communicate with a second machine external to the private network

via a network address translation (NAT) access point and a server external to the

private network, in which the external server provides proxy services, where the

external server provides configuration data for the first machine to use the server as a

proxy that extracts address information of the second machine from a data portion of a

packet sent by the first machine, which, in addition to the rest of the claim limitations of

the independent claims, are distinguished from the prior art.

Any comments considered necessary by applicant must be submitted no later

than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on

Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to J. Bret Dennison whose telephone number is 571-272-

3910. The examiner can normally be reached on Monday-Thursday 9am-5:30pm

Eastern.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on 571-272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JBD

DAVID WILEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100